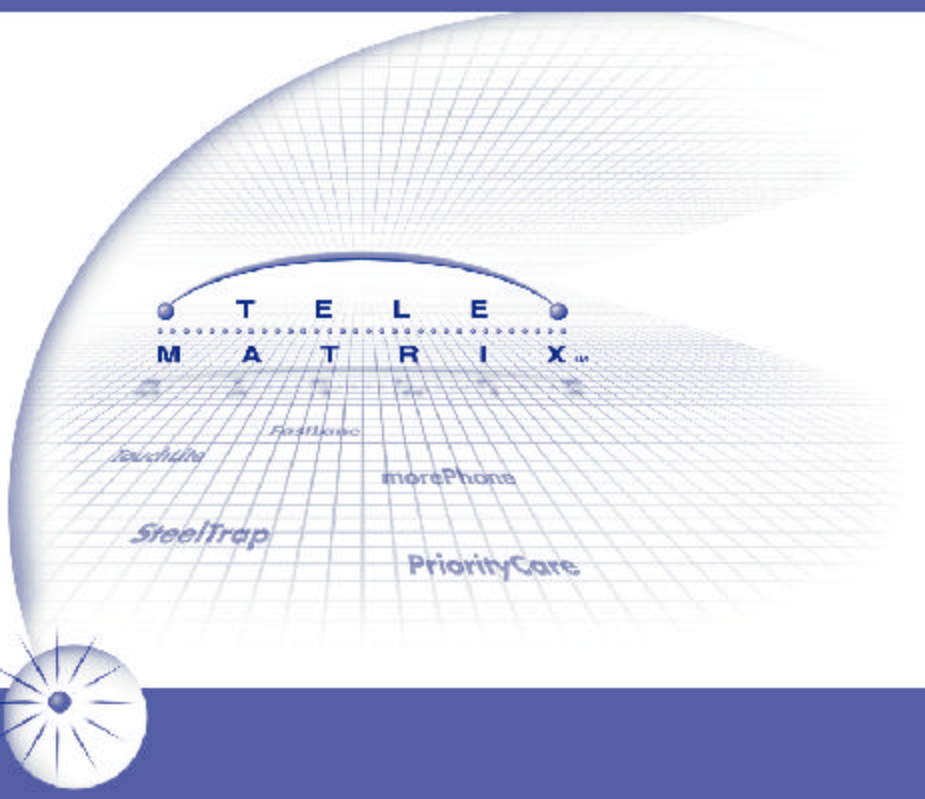

SPECTRUM PLUS™

User's Guide

Single Line Feature Telephone

Model SP-400

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INTRODUCTION

Congratulations on the purchase of your TeleMatrix model SP-400 telephone. The SP-400 includes advanced features that are suitable in today's business environment. TeleMatrix has designed the SP-400 to be simple to install and easy to use. The SP-400 is ideal for use behind Centrex or in a PBX environment.

The SP-400 telephone is a precision electronic device that requires minimum maintenance. Please be sure to read the contents set forth in the user's guide to become familiar with the wiring and functionality of this product.

"This product meets the applicable Industry Canada technical specifications."

"The Ringer Equivalence Number is an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five."

SAFETY

IMPORTANT SAFETY INSTRUCTIONS

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Read and understand all instructions.

2. Follow all warnings and instructions marked on the product.

3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

4. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

6. Slots and openings in the cabinet and the back or bottom are provided for ventilation, to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.

IF UNIT IS EQUIPPED WITH POWER ADAPTER:

7. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.

IF ADAPTER IS PROVIDED WITH A GROUNDED TYPE ATTACHMENT PLUG:

8. This product is equipped with a three wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.

IF ADAPTER IS PROVIDED WITH A POLARIZED ATTACHMENT PLUG:

This product is equipped with a polarized line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to inset the plug fully into the outlet, try reversing the plug. If the plug should still not fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

9. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by personswalking on it.

10. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.

11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

12. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect re-assembly can cause electric shock when the appliance is subsequently used.

13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    A. When the power supply cord or plug is damaged or frayed.

    B. If liquid has been spilled into the product.

    C. If the product has been exposed to rain or water.

    D. If the product does not operate normally by following the operating instructions. Adjust only those controls, that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

    E. If the product has been dropped or the cabinet has been damaged.

    F. If the product exhibits a distinct change in performance.

14. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.

15. Do not use the telephone to report a gas leak in the vicinity of the leak.

SAVE THESE INSTRUCTIONS

SAFETY

FCC Part 15 Compliance

Warning Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

[The term “IC:” before the certification/registration number only signifies that the Industry Canada technical specifications were met.]

Canadian Emissions Compliance

" This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications. "

"Le present appareil numerique n'emet pas de bruits radiolectriques depassant les limites applicables auix appareils numeriques de la class B prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada."

SAFETY

DOC - NOTICE AND LOAD NUMBER STATEMENT

NOTICE: The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

"This product meets the applicable Industry Canada technical specifications."

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

"The Ringer Equivalence Number is an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five."

[The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met.]

NOTIFICATION TO THE TELEPHONE COMPANY

Before you may connect your telephone you must notify the telephone company of particular line(s)to which such connections is to be made, and provided to the telephone company the FCC registration number and ringer equivalence number of the registered protective circuitry. The customer shall give notice to the telephone company upon final disconnection of such equipment or circuitry from the particular line(s).

Malfunction Of Telephone

In the event that your telephone fails to work properly during your ownership and use of it, you should disconnect it from the telephone line to determine if it is your phone that is not working properly or if it is a problem in the telephone company's network. If the problem is with your telephone you should discontinue its use until it is repaired.

Telephone Connection Requirements

Except for telephone company- provided ringers, all connections to the telephone network shall be made through standard telephone company provided jacks, in such a manner as to allow for easy and immediate disconnection of the terminal equipment. Standard jacks shall be so arranged that if the plug connected thereto is withdrawn, no interference to the operation of the equipment at the customer's premises which remains connected to the telephone net work shall occur by reason of such withdrawal. These telephones may not be used on party lines or coin operated lines.

Changes In Telephone Company Equipment Or Facilities

The telephone company is entitled to make changes in its facilities equipment, operations, and procedures. Should these changes be expected to render your terminal equipment incompatible with the telephone company's facilities you will be given sufficient notice to allow you to make the necessary modification to your terminal equipment without any interruption of your service.

Consumer Information:

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the ***bottom*** of this equipment is a label that contains, among other information, a product identifier in the format ***US:*** **2N3MT26B19400** If requested, this number must be provided to the telephone company.

An applicable certification jacks Universal Service Order Codes (USOC) for the equipment is provided (i.e., ***RJ11C***) in the packaging with each piece of approved terminal equipment.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive Ringer Equivalences on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of Ringer Equivalences should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total Ringer Equivalences, contact the local telephone company. [For products approved after July 23, 2001, the Ringer Equivalence for this product is part of the product identifier that has the format ***US:*** **2N3MT26B19400** The digits represented by 26 are the Ringer Equivalence without a decimal point *(e.g*., 26 is a Ringer Equivalence of 2.6). For earlier products, the Ringer Equivalence is separately shown on the label.]

If this equipment **19400/194001** causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

Please follow instructions for repairing if any (e.g. battery replacement section); otherwise do not alternate or repair any parts of device except specified.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

This equipment is hearing aid compatible.

NOTICE: If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this *[equipment ID]* does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

Should you experience trouble with this equipment, please contact **(**TeleMatrix, Inc.Customer Care Center 5025 Galley Road Colorado Springs, CO. 80915 . Toll Free:1-800-462-9446 Direct:719-638-8821 Fax:719-638-8815 www.telematrixusa.com**)** for repair or warranty information. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

[NOTICE: According to telephone company reports, AC electrical surges, typically resulting from lightning strikes, are very destructive to telephone equipment connected to AC power sources. To minimize damage from these types of surges, a surge arrestor is recommended.**]**

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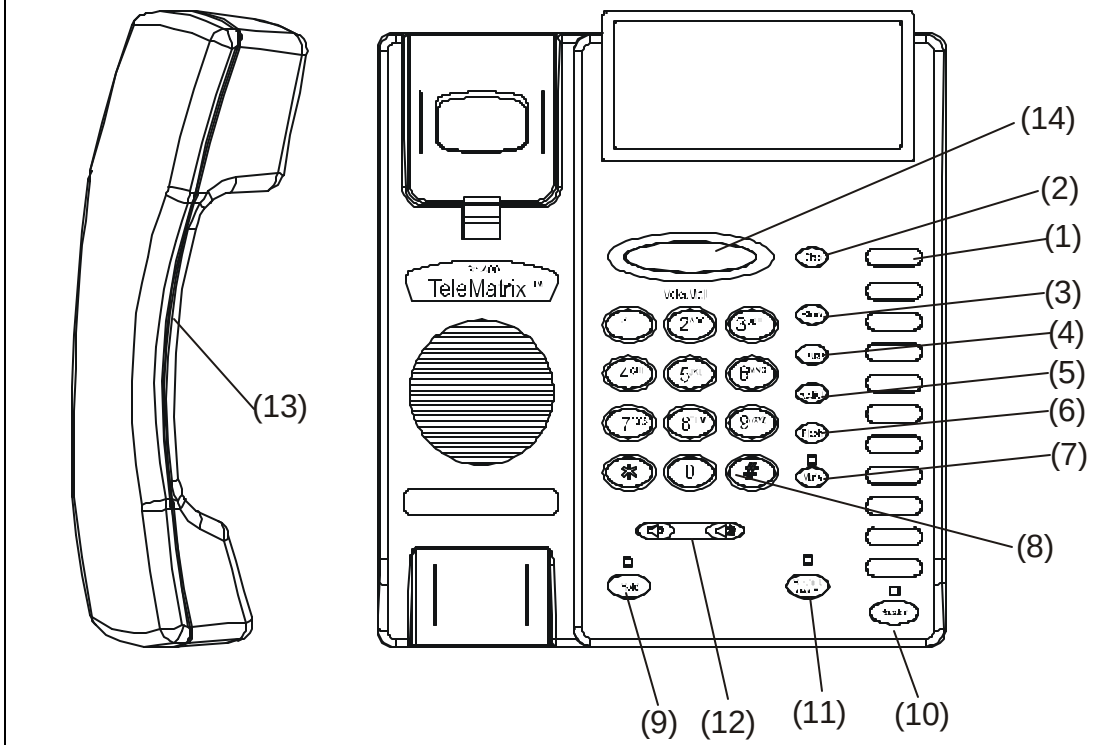
FEATURES

- One Line Operation
- SteelTrap™ Memory Technology (No Batteries Required)
- FreeSpeech™ Talk Feature: Allows Free Toggle between Handset, Headset and Speakerphone.
- Visual Message Waiting Indication* – Auto Detection for SDT, FSK or NEON.
- TouchLite™ One Touch Message Retrieval Key
- 2-Way Speakerphone (Half Duplex)
- Headset Port with ON/OFF Switch (built-in Amplifier)
- Microphone Mute
- 11 Speed Dial Locations
- Electronic Hold with LED Indicator (with Standard Line Hold or Programmable System Hold Switch Option)
- Audible Ring Tone Selection (4 options)
- Speaker, Headset and Ringer Volume Control (Soft Key)
- Convenient Data Port
- ADA Compliant Handset with 8-step Volume Control
- Disconnect Key to Activate New Call
- Last Number Redial
- Programmable Flash Key (100mS to 1000mS)
- Pause Key (2 seconds)
- Desk or Wall Mountable
- Fully Modular, Easy To Install

**Caller ID and Class Visual Message Waiting are features that require subscription to your local telephone company provided services. These telephone features will not work unless you are a subscriber.*

CONTROLS

TOP PANEL

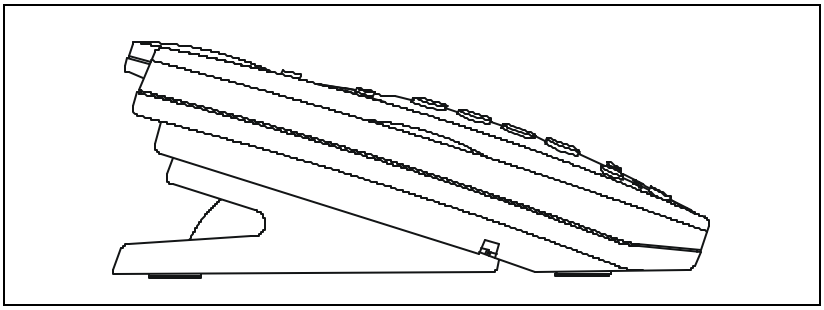


DEFINITION OF CONTROLS

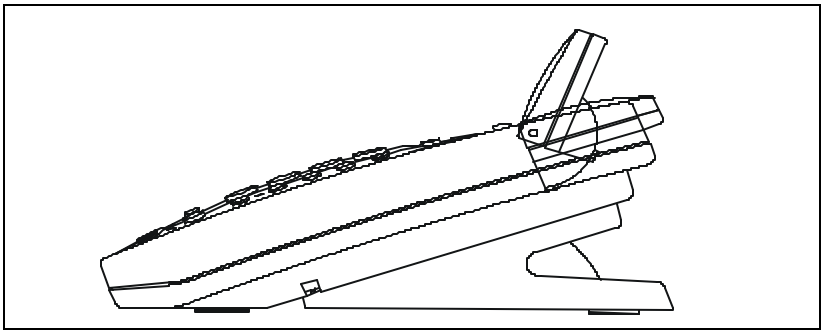
1.	Speed Dial Feature Keys……..……	11 programmable one-touch keys used for speed dialing
2.	Disconnect Key ……..…	Used to disconnect the line, place new call or exit the store programming.
3.	Store Key……..	Used to program features and speed dialing keys.
4.	Pause Key .....……	Used to program a delay in speed dialing.
5.	Redial Key .....……..	Redials the last dialed manually dialed.
6.	Flash Key .....……..…….	Provides a 100mS to 1000mS timed line break (programmable).
7.	Mute Key ……..……	Key that disables the handset and speaker phone microphones for privacy.
8.	Numeric Dial Pad ……...	Used for outbound dialing.
9.	Hold Key ……	Lighted Key used for placing callers on hold.
10.	Headset ON/OFF key ……..…	Lighted key used to turn the headset ON or OFF.
11.	Speaker Key …….....……..…	Used to turn the speakerphone ON or OFF.
12.	Volume Bar ……..……...	Adjusts the loudness of the handset receiver, the headset, and/or speaker.
13.	Handset ……..…….	Hearing-aid compatible handset.
14.	Message Waiting Lamp...…….....	LED indicator that will blink to indicate a new message in the user's voice mail box (user must subscribe to a messaging system).

CONTROLS

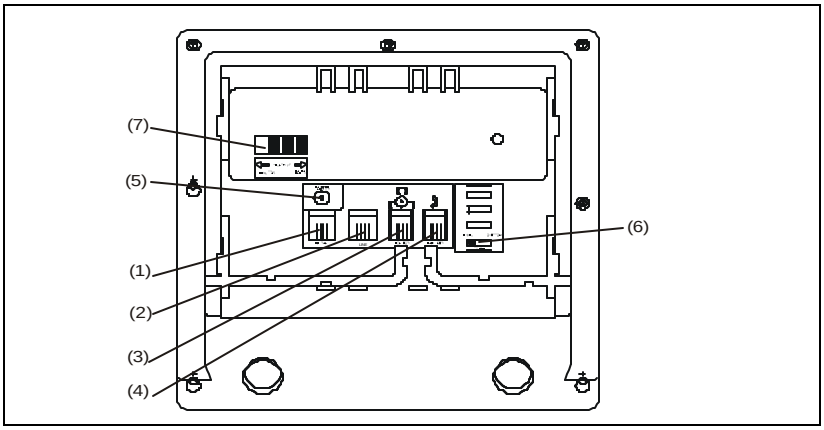
RIGHT SIDE



LEFT SIDE



REAR



DEFINITION OF CONTROLS

1. Data Port ..... Convenient port to connect a computer, modem, fax or answering device.

2. Line Jack ..... Modular receptacle for connecting the line cord.

3. Headset Jack ..... Convenient port for a headset connection.

4. Handset Jack ..... Connection for handset coil cord.

5. Power Adapter Receptacle ..... For optional coaxial power adapter.

6. Hold Key Switch ..... Used to select standard line hold or programmable system hold.

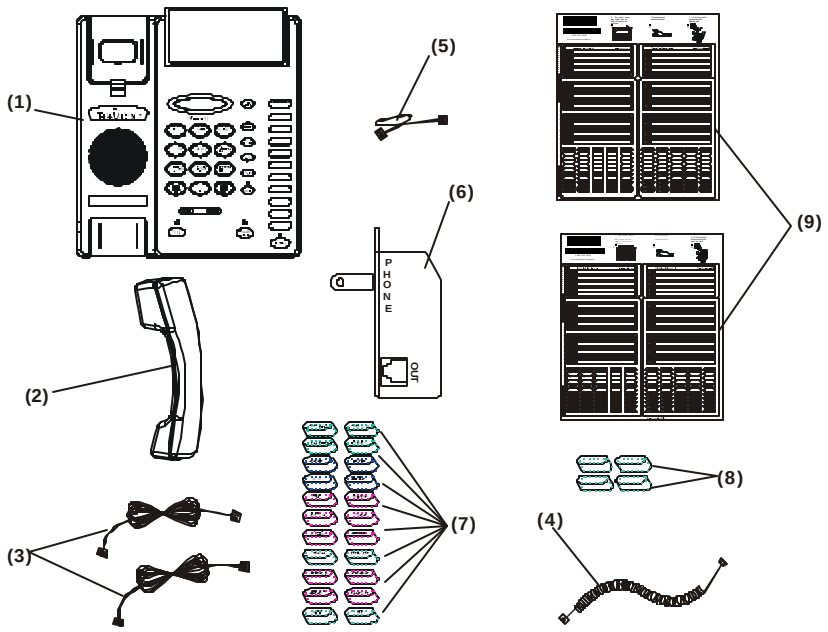
7. Elevation Stand Lock ..... Used to “lock” the elevation stand..

PARTS LIST

Parts Check List

The following parts are included with the SpectrumPLUS™ SP400:

1. Base Unit
2. Handset
3. Two (2) 15’ Modular telephone line cords.
4. 10’ Modular coiled handset cord.
5. 6” Modular wall mount line cord.
6. Power Adapter.
7. Twenty-two (22) Speed Dial Preprinted Keycaps
8. Four (4) Additional Clear Keycaps
9. Two (2) Index Sheets



NOTE: SpectrumPLUS™ Line Cords are 6-Pin 6-Conductor Line cords (6P6C line cord). Replacement Line Cords must be same.

INSTALLATION

Caution

? Never install telephone wiring during a lightning storm.

? Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.

? Never touch uninstalled telephone wires or terminals unless the telephone line has been disconnected at the network interface.

? Use caution when installing or modifying telephone lines.

Power Outlet Configuration

The SpectrumPLUS™ Series telephone requires external power from a standard 120V outlet (60Hz).

IMPORTANT!

! The telephone will not function if the line cord connections are not correct. Be sure that the telephone line cord connections are not reversed ("LINE"/"PHONE"). Attach the line cords to the power adapter and the wall before connecting to the telephone. SpectrumPLUS™ Line Cords are 6-Pin 6-Conductor Line cords (6P6C line cord) . Replacement Line Cords must be same.

INSTALLATION

120V AC Outlet Recovery Power Adapter (provided)

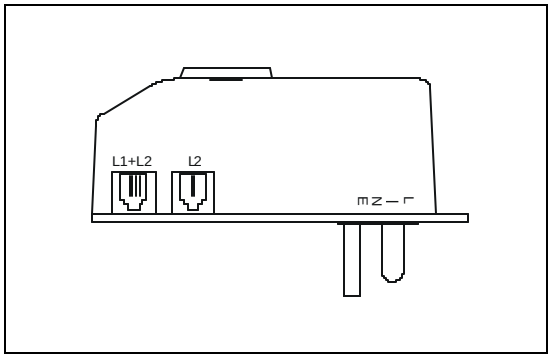
The 120 VOLT AC OUTLET RECOVERY POWER ADAPTER is an featured TeleMatrix product. It provides both the telephone lines and the power source in one cable (6P6C line cord) and is designed to recover the use of the power outlet.

Connector Configuration

The 120V Outlet Recovery Power Adapter has two (2) modular jacks. One jack is labeled "LINE" and the other jack is labeled "PHONE". These jacks allow for a fully modular installation.

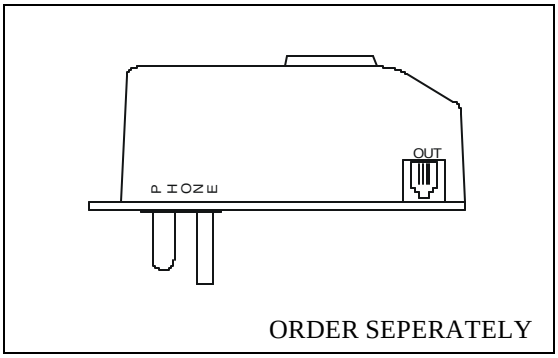
Power Adapter "LINE" Connection

The power adapter "LINE" connection is used to connect the telephone line from the wall jack to the power adapter. Using one of the 15 foot modular telephone line cord, connect one end of the cord to the RJ14 telephone jack on the wall or base board. The remaining end of the cord plugs into the "LINE" side of the power adapter.



Power Adapter "PHONE" Connection

The power adapter "PHONE" connection is used to provide both the telephone lines and the power source to the telephone. Using one of the 15 foot modular telephone line cord, plug one end of the line cord into the back of the telephone. Plug the remaining end to the power adapter jack labeled "PHONE".

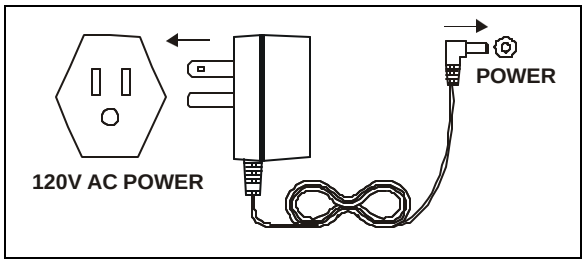


ORDER SEPERATELY

INSTALLATION

Installing The Wall Power Adapter (optional)

To install, simply plug the power adapter into a standard 120V AC power outlet. A mounting hole is provided to secure the power pack to the AC wall outlet. Plug the AC power pack directly into the wall outlet and then plug the coaxial connector into the receptacle marked “POWER” located on the back of the telephone.



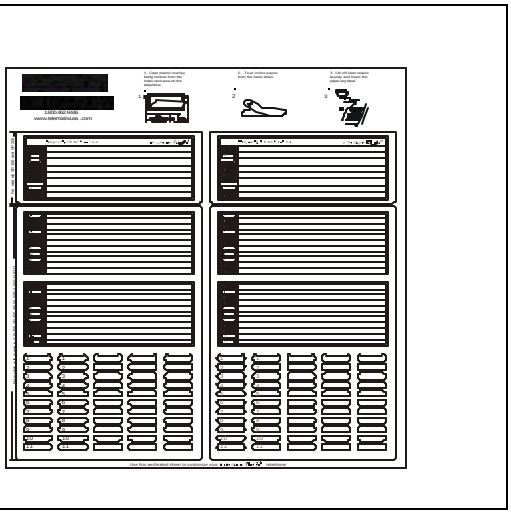
ORDER SEPERATELY

INSTALLATION

Directory Index Card

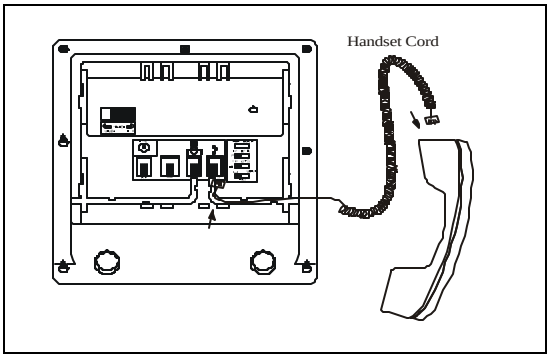
The SpectrumPlus™ telephone series has a tilting display located in the upper right section of the telephone that allows for sliding in directory cards, index cards, and/or a company logo. You can even personalize this area with photographs of your family, friends or pets.

Customized printing of faceplates is available by calling TeleMatrix Priority Care for information. *There is a minimum order quantity required.*.



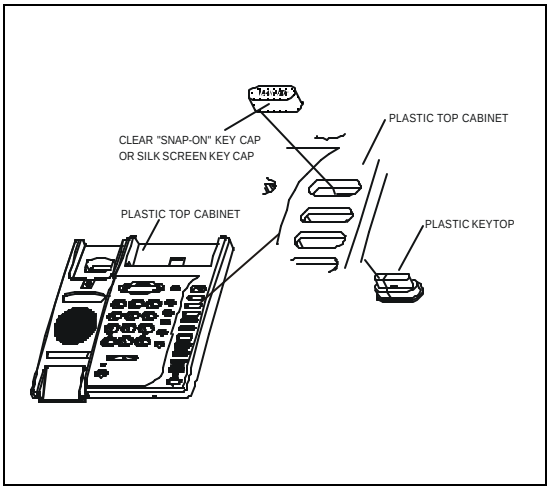
INSTALLATION

Connecting the Handset Cord



A 10 foot modular coil handset cord is provided. (*Be sure that the wall/desk elevation stand has not been attached).* To install the cord, simply plug the *short* end of the handset cord into the modular jack on the handset. The *long* end of the handset cord plugs into the jack labeled "Handset" located on the bottom of the SpectrumPLUS™ base unit. Place the line cord into the line cord channel located directly below the jack.

Installing the Keycaps



Twenty-two preprinted named feature keycaps are provided to identify the speed dial key.

There are 11 clear keycaps already installed. To install pre-printed keys, remove the clear keycap by simply pulling up. Replace with the preprinted keycaps or place hand written paper index sheets under a clear keycap. Program each speed dial key for the specific function of the key.

For speed dial programming instructions, see the section on "Programming Procedure For SpectrumPlus™ Speed Dial Features" in this manual.

There are 4 additional clear keycaps and 2 index sheets provided as spares. Use these for your own personal speed dial identities. Write the speed dial name on the blank speed dial index cards and insert into the blank keycaps. Place the keycap on the correct memory speed dial location. (see index sheets provided in box).

The twenty-two preprinted keycaps are described below:

Call Fwd On	Call Back	Paging	Skip Msg	Information
Call Fwd Off	Cancel Call Back	Ring Again	FF Msg	911
Transfer	Call Park	Save Msg	aRew Msg	
Conf	Call Pick-up	Del Msg	Emergency	
DND	Group Call Pick-up	Rpt Msg	Help Desk	

INSTALLATION

Wall Mounting the SpectrumPLUS™ Telephone

The SpectrumPLUS™ was designed to be conveniently wall mounted without requiring additional hardware.

Follow these easy steps:

1.The handset retaining clip must be in the correct position to secure the handset into the handset cradle. To engage the clip, pull the clip forward (outward) with your fingers, rotate the clip 180º and snap the clip back into place (figure 1). The retaining clip cannot be removed because it is spring loaded.

2. The SpectrumPLUS™ has provisions for a mounting wedge that must be correctly positioned. This wedge allows the telephone to be viewed at a correct angle when the phone is wall mounted. Remove the wedge from the phone base (figure 2).

3. Secure the wiring in place prior to installing the wall mount wedge. The wall mount base has extra large wiring channels and strain relief poles for containing the wires in a neat and orderly way. Wrap the wires around the strain relief poles and then secure the wires through the channel.

4. To wall mount, place the narrow edge at the top edge of the phone base and slide the wedge upward into place (figure 3).

5. Lock the wall mount into position by sliding the locking button to the right (figure 4).

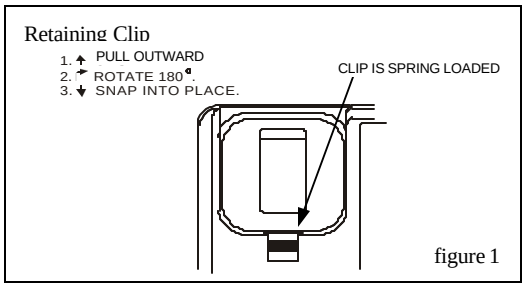


figure 1

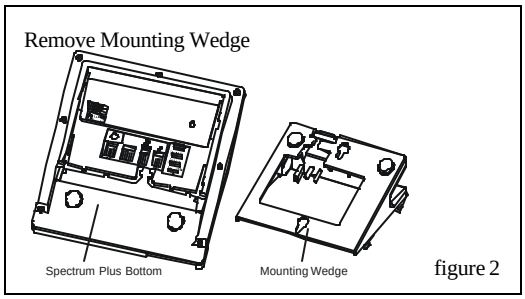


figure 2

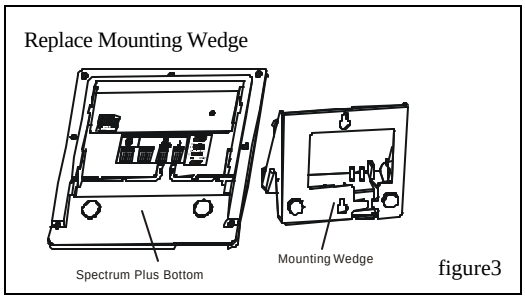


figure3

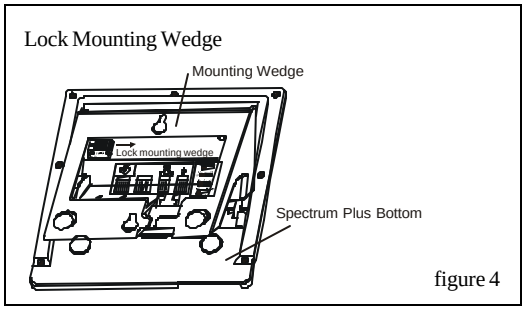


figure 4

> ***Note:*** *A 6 inch line cord is provided for wall mount installation. Connect one end of the line cord to the phone jack and the other end to the wall jack.*

Desk Mounting

To install the wedge for desk mounting, be sure the lock mechanism is positioned to the left clear of the locking arm. Place the wedge in the slots, wide end toward top of phone base unit, and slide the wedge upward into position. Lock the wedge into place.

INSTALLATION

Message Waiting Light Indicator

The SpectrumPLUS™ telephone has a Message Waiting (MW) Light Indicator (figure 1). The indicator will blink to indicate that a new message is in the user's voice mailbox. The SpectrumPLUS™ supports the following telephone or PBX supplied message waiting signals:

1. Telephone Company VMWI Service (FSK signal compatible, subscription to local telephone company is required).*
2. Audible Stutter Dial Tone (SDT) signals provided by local telephone company.
3. 90-Volt NEON message waiting light indicator signal is provided by your PBX.

MW Light Indicator

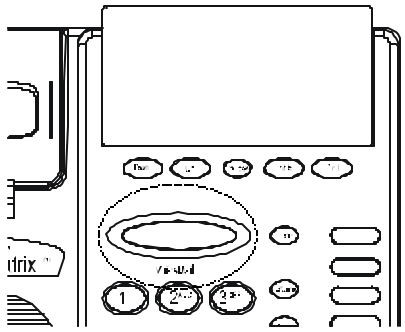


figure 1

The PBX system or telephone service provider has to activate the voice mail feature for the light to illuminate and work properly. Be sure that your telephone service provider or PBX system has the compatible messaging service available in your area or facility.

! ***NOTE:*** *The SpectrumPLUS™ telephone automatically reads the Message Waiting (MW) signals supplied by your service provider.*

d ****Definition:*** *VMWI is Visual Message Waiting Indication. This option requires a subscription to your local telephone service provider for TouchLite™ to activate.*

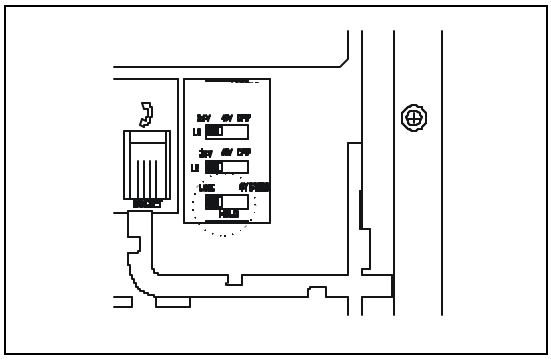
SWITCH SETTINGS

System Hold Feature Option Switch

A hold feature switch is located on the bottom of the phone. The switch options are standard "LINE" hold or programmable* "SYSTEM" hold.

The standard line hold allows for normal hold function operation. The programmable* system hold feature is used for optional system operations.

The switch default is standard line hold.

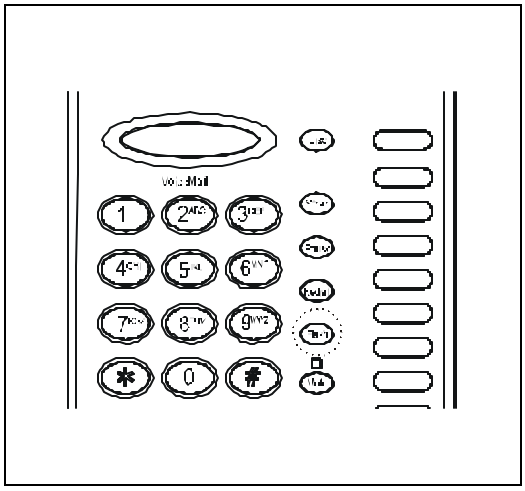


* Programming System Hold is an Administrator function. To program System Hold, follow the speed dial instructions in this manual. To store the dialing pattern, press the HOLD key in place of the memory location.

Programming Flash Timing into Memory

Flash Timing can be programmed into the SpectrumPLUS™ speed dial memory. This function allows the user to dial a timed line break in the sequence of the dialing patterns when using the speed dial keys. This function may be required for accessing line features provided by your telephone system or local telephone company.

Programming The Flash Timing



To Program Flash Timing

1. Press the STORE key.

2. Enter the desired flash timing by entering the desired timing using dial key pad. The timing can be programmed between 100mS to 1000mS. Check with your local service provider or PBX provider to select the appropriate correct timing.

3. The factory default Flash timing is programmed at 600mS, which is the most used timing option.

Using A Flash When Dialing

To use a Flash, simply press the Flash key at the appropriate point in the number sequence being dialed from the key pad.

NOTE: *Each "Flash" function counts as 1 digit when stored into a speed dial memory location..*

Programming Flash Timing

Flash timing can be programmed for different timing options listed below.

1. Position the handset in the Off-Hook position (lift the handset).
2. Press the “STORE” key for 2 seconds.
3. Press following keys on the keypad in the order shown:

For 100mS	press "*" "1" "1", then “store”.
For 200mS	press "*" "1" "2", then “store”.
For 300mS	press "*" "1" "3", then “store”.
For 400mS	press "*" "1" "4", then “store”.
For 500mS	press "*" "1" "5", then “store”.
For 600mS	press "*" "1" "6", then “store”.
For 700mS	press "*" "1" "7", then “store”.
For 800mS	press "*" "1" "8", then “store”.
For 900mS	press "*" "1" "9", then “store”.
For 1000mS	press "*" "1" "0", then “store”.

4. Place the handset cradle to the On-Hook position.

Programming Example for 100mS

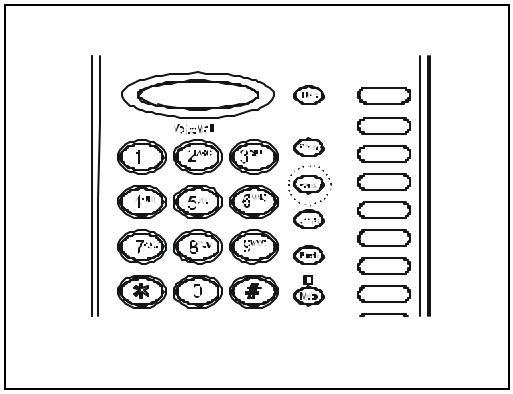
Go Off hook with handset, press “store”, then “*”, then “1” to enter the set up state, then “1”, then “store”. Place the handset into cradle to the On hook Position.

NOTE: The Flash Timing default is 600mS

Programming A Pause into Memory

2-second Pause(s) can be programmed into the speed dial. This function allows the user to delay the dialing pattern of a number. This function may be required for accessing line features provided by your telephone system or local telephone company. For example, a speed dial number may need to pause during its dialing sequence to insure proper connections.

Programming Pause Into Speed Dial



To Program A Timed Pause

1. To store a Pause into Speed Dial memory, simply press the Pause key in the numbering sequence when programming speed dial memory keys. See the following page for programming speed dial.

NOTE: The default Pause timing is 2.0 Seconds. A multiple of Pauses can be programmed into speed dial memory to increase the delay.

Using A Pause When Dialing

To use a Pause, simply press the Pause key at the appropriate point in the number sequence being dialed from the key pad.

NOTE: Each "Pause" function counts as 1 digit when stored into a speed dial memory location..

PROGRAMMING

Programming Procedure For SpectrumPlus™ Speed Dial Features

The SpectrumPLUS™ Telephone has 11 one-touch speed dial locations that are convenient for dialing frequently used telephone numbers. Each speed dial location can store up to 32 digits. Follow the procedure below for programming the speed dial information.

Note 1: Speed dial programming must be done with the telephone plugged into the telephone line and power adapter.
Note 2: Programming can be performed with the telephone on-hook.

Programming Procedure

1. Speed dial programming must be done with the telephone plugged into the telephone line.

2. The handset must be "off-hook" or Speakerphone On.

3. Press the "Store" key.

4. Dial the telephone number that is to be saved using the numeric dial pad.

5. Press the desired speed dial location keys (1-11) in which the number is to be saved.

6. To program additional numbers, repeat steps 3 thru 7.

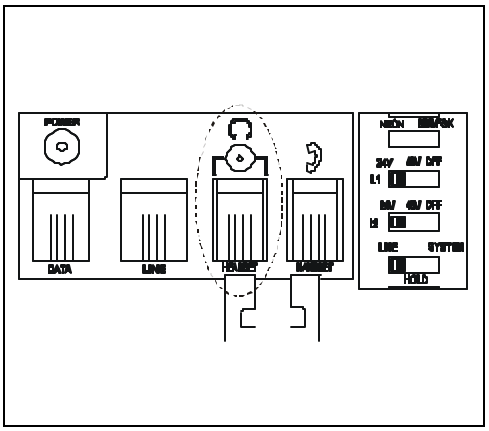
7. Place the convenient pre-printed speed dial keycaps on the selected speed dial memory key or complete the paper index card and place it into the clear protective keycap. Install the keycap on the appropriate speed dial memory key.

NOTE: Blank index card sheets are provided for convenience. Complete and place the index card into the speed dial memory key.

HEADSET

Headset Feature

The SpectrumPLUS™ is equipped with a separate port for plugging in an optional headset. The port is located on the bottom of the base unit. The TeleMatrix ***FreeSpeech™ Talk Feature*** is a unique TeleMatrix feature that allows the user the freedom to "toggle" between the headset, handset and speakerphone modes during a conversation.



When the **"HEADSET ON/OFF"** key is ON, pressing the **"SPEAKER"** key will activate the speaker and disconnect the headset line automatically. This feature avoids having to use the hookswitch/handset to process telephone calls while in headset mode.

The headset can be purchased from a TeleMatrix distributor. There are many varieties of headset models available.

NOTE: *An external amplifier is NOT recommended. The phone has a built in amplifier.*

Installing a Headset

- The headset port is located on the bottom side of the telephone base.
- Plug the modular end of the headset cord into the modular port of the telephone labeled "HEADSET" (figure 1).
- Press the "HEADSET ON/OFF" key to activate the headset. The LED above the key will illuminate to indicate that the headset is on (figure 2).

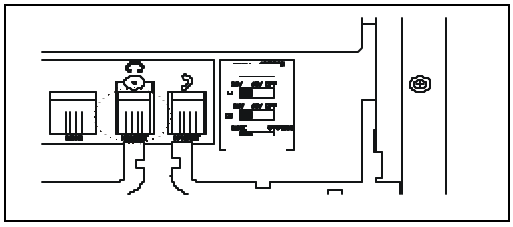


Figure 1

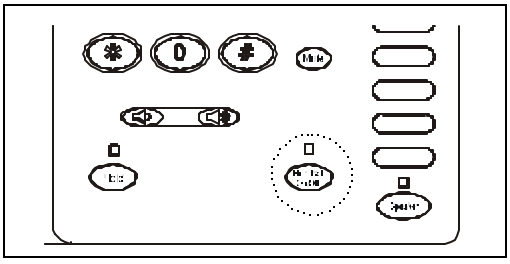


Figure 2

HEADSET

Using A Headset

The **"HEADSET ON/OFF"** key controls the activation of the Headset. When using the headset feature, the handset remains on-hook at all times.

Placing/Answering a Call using the Headset On/Off Feature

- To answer an incoming call, press the **"HEADSET ON/OFF"** key to activate the headset. The LED above the **"HEADSET ON/OFF"** key will be illuminated when in ON position.
- Adjust the volume, if necessary.
- Use the features of the headset that are available with the handset in use.
- You can dial using the the keypad or a speed dial key.
- To end headset activation, press the **"HEADSET ON/OFF"** key. The LED above the **"HEADSET ON/OFF"** key will not be lighted when in OFF position.

f ***Volume Lock Feature —*** *When the handset, speaker, or headset volume feature is selected, the volume will automatically stay at that setting in the next use.*

f ***FreeSpeech™ Talk Feature*** *is a unique TeleMatrix feature that allows the user the freedom to "toggle" between the headset, handset and speakerphone modes during a conversation.*

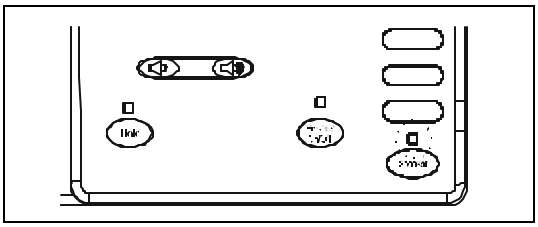
OPERATION

In-Use Indicators

In-use indicator lights located above each key indicate in-use operations.

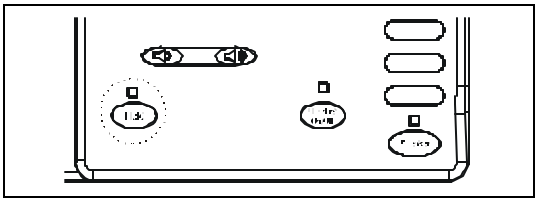
Speaker Line Indicators

When the **"SPEAKER"** key is activated, the in-use light illuminates steadily RED above the **"SPEAKER"** key.



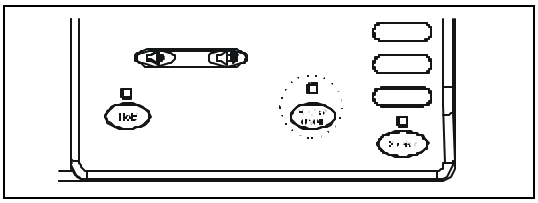
Hold Key Indicators

When the **"HOLD"** key is activated, the light above the HOLD KEY will be steadily RED.



Headset Key Indicators

When the **"HEADSET ON/OFF"** key is activated, the Headset indicator will be steadily RED.



Placing a Call Using the Speakerphone

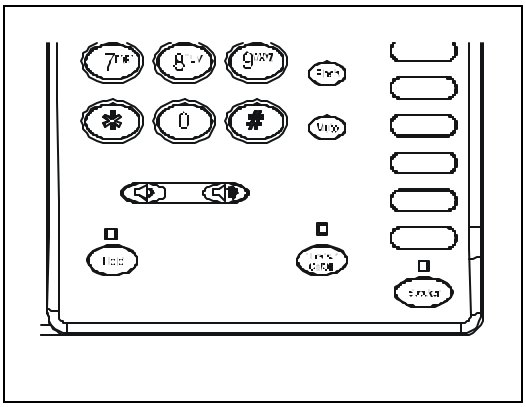
The SpectrumPLUS™ is equipped with a high quality speakerphone feature to allow for hands-free operation. To use, simply press the **"SPEAKER"** key when placing or answering a call. The telephone line will activate automatically.

When the "DIALPAD" Feature is programmed to be ON, the speakerphone will active automatically when pressing and number on the dial pad keys.

The LED above the **"SPEAKER"** key will illuminate to indicate that the speakerphone is in-use.

To hang-up, press the **"SPEAKER"** key again.

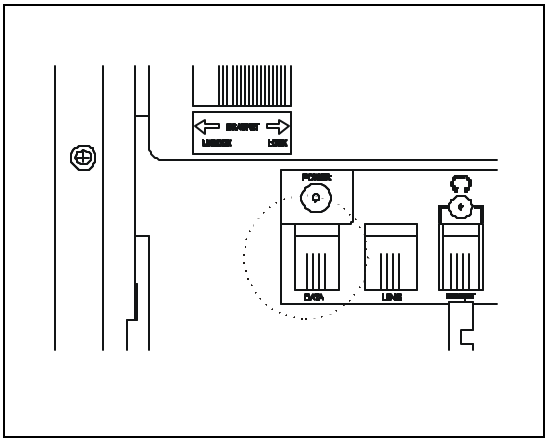
To use the handset, pick up the handset from the cradle and the handset will be active. The speakerphone will disconnect. To re-activate the **"SPEAKER"** key, press the **"SPEAKER"** key and place the handset back into the cradle.



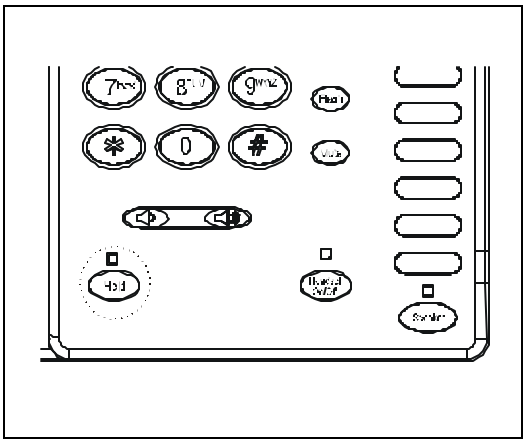
Autoline Select Feature *— For 2 line phones, when activating the handset, speaker, or headset for dialing, the phone will automatically select the open line. The first line for auto selection is Line 1, then Line 2.*

Using the Data Port

The SpectrumPLUS™ is equipped with a convenient data port on the bottom of the base unit. This modular receptacle is used to plug in any standard telephone device such as a computer modem, answering machine, or fax machine.



Using the Hold Feature



The **"HOLD"** key is used to place a caller on hold. To use, simply press the **"HOLD"** key. The LED above the HOLD key will illuminate to indicate that the line is on hold.

When the **"HOLD"** key is active, the handset can be lifted off-hook or returned to its on-hook position and the line will not be disconnected. To return to the caller, simply lift the handset and the **"SPEAKER"** key will automatically activate for hands-free operation.

Hold will also release when the call is picked up from an additional extension phone.

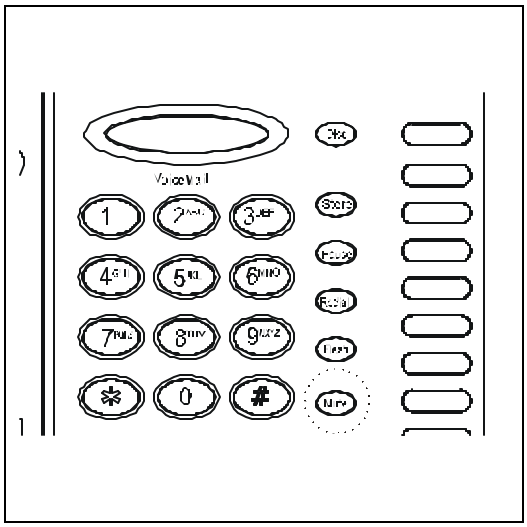
If the headset is active prior to placing the caller on hold, press the **"HEADSET ON/ OFF"** feature will re-activate.

Using The Mute Feature

A **"MUTE"** key is provided to allow privacy during a background conversation. When the **"MUTE"** key is activated, the microphones in the handset and/or headset are disabled.

When the **"MUTE"** key is activated, the caller will not hear voice. When activated, the LED above the Mute key will illuminate steadily RED.

To de-activate, press the **"MUTE"** key again.

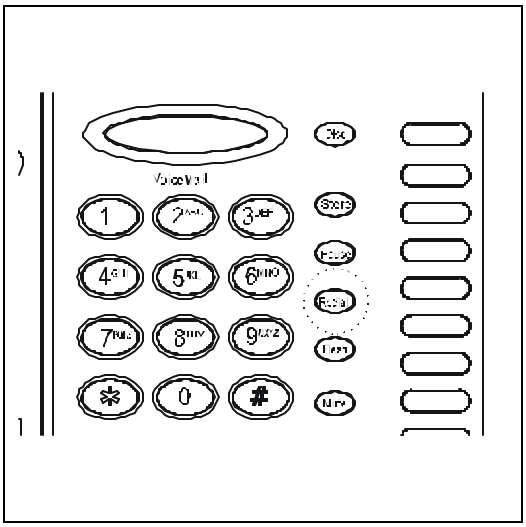


Using the Redial Feature

The **"REDIAL"** key is used to automatically redial the last number that was dialed from the keypad.

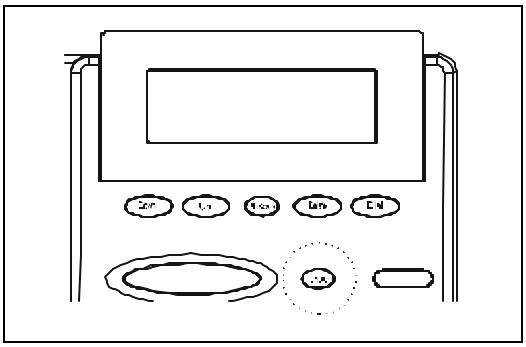
To use:

- Lift the handset (or activate the speaker).
- Press the **"REDIAL"** key.
- The last number dialed will be redialed.



Using The Disconnect Feature Key

The **"DISC"** (DISCONNECT) key is a 2-second electronic timed line break. The key can be used to automatically hang-up the call that you are currently on and regain a new dial tone to establish a new call.

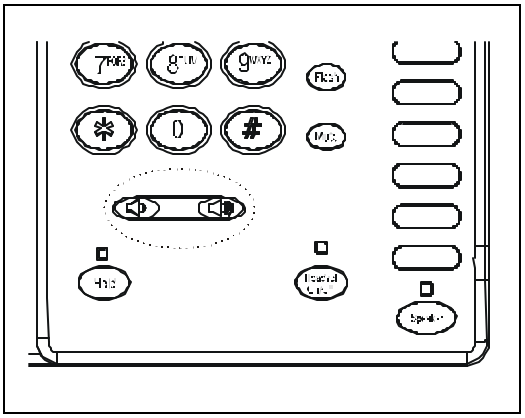


To use:

- ? Simply press the **"DISC"** key when the conversation is complete.
- ? The **"DISC"** key can be used in Speaker mode, on-hook, off-hook or conference.
- ? The **"DISC"** key can be used with headset or handset activation.
- ? The **"DISC"** key provides a convenient way to disconnect the line when not using the handset.

! ***NOTE:** The telephone system provider or PBX system provider must offer this feature within their system. The telephone only receives the signal from the operating company or PBX system.*

Handset Volume Control



The SpectrumPLUS™ is equipped with an ADA/FCC compliant handset volume control located on the front of the phone.

When the right end of the **"VOLUME"** key is pressed, the volume of the handset receiver is increased.

When the left end of the **"VOLUME"** key is pressed, the volume of the handset receiver is decreased.

The **"VOLUME"** key is an eight-step volume control with the "1" setting being OFF.

f

Volume Lock Feature — *When the handset, speaker, or headset volume feature is selected, the volume will automatically stay at that setting in the next use.*

CARE AND MAINTENANCE

Keep the telephone dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.

Use and store the telephone only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.

Keep the telephone away from excessive dust and dirt that can cause premature wear of parts.

Wipe the telephone with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the system.

SERVICE

When problems arise during installation or service that cannot be resolved using this or related documents, contact the TeleMatrix Technical Service department 8:30a.m. - 4:30p.m. MST:

Toll Free: 1-800-462-9446
Direct: 719-638-8821
Fax: 719-638-8815
www.telematrixusa.com

Many times a problem is either installation or user related. Please contact TeleMatrix PRIOR to sending a telephone to our service center for repair. In the unlikely event that a factory repair be necessary:

1. Include a brief description of the trouble that you are experiencing.
2. Include a proof of purchase for a repair under warranty.
3. Send the telephone prepaid by UPS or Parcel Post insured to:

TeleMatrix, Inc.
Customer Care Center
5025 Galley Road
Colorado Springs, CO. 80915

TeleMatrix will pay to return the repaired telephone to you. Allow 2-3 weeks for delivery.

SPARE PARTS

Parts List

The following SpectrumPLUS™ accessories and parts are available from TeleMatrix.

Description	Part Number	List Price*
Handset Unit (light ash)	90027086-ASH	$24.00
Handset Unit (black)	900220801-BLK	$24.00
Passthrough Power Supply Adapter (light ash)	90036006-ASH	$15.00
Passthrough Power Supply Adapter (black)	900360061-BLK	$15.00
Direct Connect Pwr Supply Adapter (light ash)	90036007-ASH	$12.00
Direct Connect Pwr Supply Adapter (black)	900360071-BLK	$12.00
15 foot Modular Line Cord (light ash)	90017023-ASH	$8.00
15 foot Modular Line Cord (black)	900170231-BLK	$8.00
6 inch Modular Line Cord (light ash)	90017019-ASH	$3.00
6 inch Modular Line Cord (black)	900170191-BLK	$3.00
10 foot Coil Cord (light ash)	90017040-ASH	$6.50
10 foot Coil Cord (light ash)	90017041-ASH	$6.50
Preprinted Opaque Keycaps (Kit)	STD	$6.50
Custom Preprinted Opaque Keycaps	CSTM	Call for quote
Keycap Blank Index Card Sheet	BLNK	$1.50
Headset		Call for quote

*Pricing in US$ Currency. Freight is Prepay and Additional. Pricing is subject to change without notice.

To Place An Order

1. Contact TeleMatrix Customer Service department, Monday through Friday, 8:30a.m. - 4:30p.m. MST.

   Toll Free: 1-800-462-9446
   Direct: 719-638-8821
   Fax: 719-638-8815

2. Or visit our web site for ordering information and local distributors.

LIMITED WARRANTY

STATEMENT OF LIMITED WARRANTY

TeleMatrix, Inc. and TeleMatrix Equipment, LLC (TMX) warrants to its [original end customer] [purchaser] that Spectrum, Spectrum Plus and Marquis branded products manufactured by TMX are free from defects in materials and workmanship for five (5) years after the date of purchase, and Regency branded products manufactured by TMX are free from defects in materials and workmanship for three (3) years, other than the following products for which the warranty period shall be one (1) year: handset batteries, either NiCd or NiMH, used in TMX cordless products. If a product fails this warranty during the warranty period, TMX will, at its option, either repair or replace the defective product or parts, or deliver replacements for defective products or parts on an exchange basis at no additional charge to the customer except as set forth below. Repair parts or replacement products may be either new or reconditioned. Products or parts returned to TMX under this warranty will become the property of TMX. Warranties on products repaired by TMX expire at the termination of the original warranty period.

This limited warranty does not cover:

1. Products or parts which are damaged, abused or misused;
2. Any damage resulting from improper installation, maintenance or operation of the product;
3. Damage resulting from unauthorized modification or repair of the product, or from improper connection of the product to other equipment;
4. Cords, connectors and replaceable batteries;
5. Damage in transit to the TMX repair facility;
6. Any product or part unless proof of date of purchase is submitted with the product when returned for warranty repair; or
7. Costs incurred by the customer in removing and shipping the product to TMX for repair or replacement, and costs of reinstallation of the product.
8. Products or parts which are not owned and used by the original end user customer.

The cost and risk of loss or damage for sending the product to TMX will be borne by the customer.

TMX EXPRESSLY DISCLAIMS ALL WARRANTIES EXCEPT THE LIMITED WARRANTY SET FORTH HEREIN, WHICH IS THE SOLE AND EXCLUSIVE WARRANTY OF THE PRODUCT, AND IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED, OR STATUTORY. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE CUSTOMER'S SOLE REMEDY UNDER THE TMX WARRANTY SHALL BE REPAIR OR REPLACEMENT AS PROVIDED ABOVE. IN NO EVENT WILL TMX BE LIABLE TO CUSTOMER OR ANY OTHER PARTY FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, DAMAGES OF LOST PROFITS, LOST REVENUES, LOSS OF USE OF FACILITIES OR EQUIPMENT, OR COST OF SUBSTITUTE EQUIPMENT ARISING OUT OF THE USE OR INABILITY TO USE THIS PRODUCT, EVEN IF THE CUSTOMER HAS ADVISED TMX OF THE POSSIBILITY OF SUCH DAMAGES. TMX LIABILITY FOR DAMAGES SHALL NOT EXCEED THE PURCHASE PRICE OF THE DEFECTIVE PRODUCT.

This limited warranty is non-transferable without the prior written approval of TMX. It gives the customer specific legal rights. The customer may have other rights which vary under local law. Some jurisdictions may not allow limitations on the term of an implied warranty or exclusions or limitations of incidental or consequential damages.

www.telematrixusa.com

1.800.462.9446

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